DOCUMENT RESUME

ED 305 608 CS 009 605

AUTHOR Goetz, Ernest T.; And Others
TITLE Imagery and Emotional Response in Reading.
PUB DATE 87
NOTE 17p.; An earlier version of this paper was presented at the Annual Meeting of the National Reading Conference (37th, Clearwater, FL, December 3-6, 1987).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Affective Measures; *Emotional Response; Higher Education; *Imagery; Likert Scales; *Reader Response; Reader Text Relationship; Reading Processes; Reading Research
IDENTIFIERS *Aesthetic Reading; Text Factors

ABSTRACT

To explore imagery and emotional involvement in reading, a study examined readers' imagery and emotional responses through the use of ratings for each paragraph in a story. Subjects, 40 undergraduate volunteers recruited from education classes, read a 2100-word excerpt from the novel "Buffalo Chief" by Jean and Paul Annixter. Students read a brief practice story to become familiar with the computer's presentation of the text, followed by the experimental passage. For both passages, the text was presented so that although an entire "page" of text was present on the screen (so that the reader could get information regarding word and paragraph lengths), only one line was readable at a time. The reader controlled which line of text was legible. After reading the experimental passage, subjects reported any images or emotional reactions they experienced while reading the story. Finally, students rated their imagery and emotional responses. For the rating task, the story was again presented on the computer, one paragraph at a time. Beneath each paragraph, rating scales appeared on which readers rated their imagery and emotional responses to the paragraph on five-point Likert-type scales of imagery and affect. Findings, directly compared to those of previous research investigating imagery and emotional response, suggested that imagery and affect ratings are more reliable and replicable than some reading researchers have suspected. Findings demonstrated readers experience both imagery and emotional reactions that are interrelated and can be reliably studied. One figure is included. (MM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED305608

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Ernest Goetz
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Imagery and Emotional Response in Reading

Ernest T. Goetz
Mark Sadoski
Michael L. Stowe
Thomas G. Fetsco
Susan G. Kemp

Texas A&M University

Contact: Ernest T. Goetz
Department of Educational Psychology
Texas A&M University
College Station, TX 77843
(409) 845-1874

CS009605

Running Head: Imagery and Emotional Response

Note: A version of this paper was presented at the meeting of the National Reading Conference, December, 1987.

Imagery and Emotional Response in Reading

How shall we describe the encounter between reader and text? Certainly the reader's eyes scan the text for visual information in the print. Words are recognized and their meanings used in comprehension of the text. Some portions of the text are viewed as more important, and these important portions are selected for inclusion in summaries and preserved in recall. A complete understanding of the reading act, however, requires that we look beyond word recognition, comprehension, and recall. We should seek to understand the richness of the psychological and aesthetic experience that often characterizes reading, particularly the reading of literary and popular texts. The experience of reading an effective story or novel involves not only word recognition and comprehension, but also imagery and emotional involvement from the reader. In the present study, we explored these latter aspects of reading. Specifically, we examined readers' imagery and emotional responses through the use of ratings for each paragraph in a story. Analyses focused on interrater reliability and on the relationship between imagery and affect. We then directly compared findings of the present study to those of previous research that investigated imagery

and emotional response (Sadoski & Goetz, 1985; Sadoski, Kangiser, & Goetz, 1986).

In characterizing the interaction of reader and text, one of the issues of contention has been whether the reader or text is the primary determinant of the reading experience. If the text is dominant, then readers' responses should be consistent and predictable. This view has had its proponents in reading theories that stress bottom-up, data-driven processes (e.g., Carroll, 1969; Gough, 1972; LaBerge & Samuels, 1974) and in literary theories that stress the importance of text features in determining literary response (e.g., Culler, 1975; Iser, 1978; Zholovsky, 1984). If, on the other hand, the reader dominates, then responses may vary markedly from one reader to the next. This view has been expressed by reading theories that stress the constructive nature of the reading process (e.g., Anderson, Spiro & Mantague, 1977; Goodman, 1984; Smith, 1982; Spiro, Bruce, & Brewer, 1980) and by literary theories that view literary interpretation as a personal, subjective experience (e.g., Barthes, 1976; Fish, 1980; Holland, 1975). Examination of readers' imagery and emotional response provides an avenue for examining the issue of whether the interaction between reader and text is marked by convergence or divergence of reader response. In the

present study, imagery and affect ratings afforded an examination of convergence vs. divergence in reader response.

Method

Subjects

The participants in this study were 40 undergraduate volunteers recruited from education classes.

Materials

The story used in this study was "First Kill", an excerpt of about 2100 words from the novel Buffalo Chief, by Jean and Paul Annixter (1958). As one the stories in the Reading Miscue Inventory, (Goodman & Burke, 1972), this story has been the subject of previous research. The story of the coming of age of a Sioux Indian youth determined to become a hunter, "First Kill" is full of action and danger, particularly in the climax in which the youth single-handedly kills his first buffalo with his knife while riding on its back in a raging buffalo stampede.

Procedure

Although the present report focuses exclusively on readers' ratings of their imagery and emotional responses, these data were collected as part of a study intended to tap several potentially informative sources of evidence regarding readers' responses. In order to

permit examination of on-line measures of reader responses (e.g., reading time), the text was presented via a microcomputer (Commodore 128).

Subjects were tested individually. After initial instructions, the students read a brief practice story to become familiar with the computer's presentation of the text, followed by the experimental passage. For both passages, the text was presented so that although an entire "page" of text was present on the screen (so that the reader could get information regarding word and paragraph lengths) only one line was readable at a time. This was accomplished through changing the color of the line of text to be read from a shade selected to be illegible against the screen background to one that stood out clearly. The reader controlled which line of the text was legible by pressing buttons on the computer keyboard to move up or down the page. After reading the experimental passage, subjects were asked to report any images or emotional reactions they experienced while reading the story. The order of imagery and affect reports was counterbalanced across subjects. Finally, the students rated their imagery and emotional responses. For the rating task, the story was once again presented by the computer, but this time, one paragraph at a time. Beneath each paragraph (except for 7 of the 35 paragraphs which

consisted of single sentences and were judged too short to analyze), rating scales appeared on which readers rated their imagery and emotional responses to the paragraph. The five-point Likert-type scales of imagery and affect, adapted from those used by Sadoski and Goetz (1985), were presented individually, in an order that matched that of the report tasks. Subjects indicated their rating by entering the appropriate number from the computer keyboard.

Results

The degree of agreement among raters' reactions to the story was examined by calculating alpha reliability coefficients for the imagery and affect ratings. Coefficient alpha was found to be .92 for imagery and .95 for affect ratings, evidencing a high degree of interrater agreement.

The relationship between imagery and affect was investigated by correlating the average ratings (i.e., averaged across subjects) of the 28 paragraphs rated. The correlation between imagery and affect ratings was $r=.51$, $p<.01$. The stability of this relationship was examined by comparing the imagery - affect correlation of the present study to that in a previously published study of the same story. Sadoski and Goetz (1985), using independent groups of 15 students each for imagery and affect ratings, found a correlation of

r=.43, p<.01, quite comparable to that found in the present study. Data from the study by Sadoski and Goetz were then directly compared to data from the present study to further examine the stability of the relationship between imagery and affect across the two studies. Comparisons between the two studies revealed that the relationship remained remarkably stable: r=.45, for affect ratings from the present study and imagery ratings from the previous study, r=.43 for imagery ratings from the present study and affect ratings from the previous study. Within modality, average paragraph ratings from the two studies were highly correlated: r=.79, p<.0001, for affect; r=.91, p<.0001, for imagery. The average affect and imagery ratings of the 28 rated paragraphs for the present study are displayed in Figure 1.

Insert Figure 1 about here

Discussion

The interrater reliability reported for the present study may be viewed as surprisingly high, but it is not unprecedented. Although Sadoski and Goetz (1985) did not assess interrater agreement, Sadoski et al. (1986) did. Sadoski, et al. examined imagery and emotional responses for three short stories with

surprise endings ("A Secret for Two", "Two Were Left", "The Open Window") taken from a published collection (Berger, 1958). With 13 students each rating affect and imagery, alpha coefficients for paragraph ratings ranged from .92 to .95 for the three stories.

Taken together with the results of the present study, these findings suggest that imagery and affect ratings are far more reliable and replicable than some reading researchers may have suspected. If the paucity of research on the readers' spontaneous imagery and emotional reactions while reading stories is due to the suspected unreliability of such data, these findings may help to open up this research. The consistent relationship between imagery and affect found in this study and that reported by Sadoski and Goetz (1985), and the very high within modality correlation between the two studies is especially noteworthy in view of methodological variations between the two studies. Specifically: a) Sadoski and Goetz used independent groups of raters for imagery and affect, while the same readers rated both in the present study, b) Sadoski and Goetz used paper and pencil presentations of the text and the rating scales, while the present study employed computer presentation, c) in the present study a free-report task intervened between reading the story and rating response, while the rating followed immediately

after reading in the study by Sadoski and Goetz. The consistency of findings between these two studies indicates that ratings of imagery and emotional response are quite robust across methodological variations.

With respect to the issue of convergence or divergence of reader response, the present study demonstrates a high degree of convergence. It is, however, important to note two points in this regard. First, when Sadoski et al. (1986) asked readers to describe their images and emotional responses to key story paragraphs, the descriptions did evidence some divergence, particularly in the elaboration of visual detail in imagery reports. Second, the present study and that of Sadoski et.al. employed "real" stories, selected for their interest and literary style. Thus, convergence of readers' responses attests to the skill of the author. Put another way, an effective story is effective precisely because it reliably elicits imagery and emotional response from the reader.

The relationship between imagery and affect must also be interpreted in the context of the story used. Sadoski et al. (1986) found correlations between average paragraph ratings of the three short stories ranging from r=.58 to r=.90. It may be that the relationship between imagery and affect for these

stories represent the authors' use of all the techniques at their disposal to elicit responses from the reader at key points in the story, rather than any necessary confounding of these aspects of reader response. It might be possible to write "stories" that vary imagery and emotional content independently, but is problematic whether such artificial texts would be "real" stories.

When considering readers' spontaneous reactions to well-written and engaging stories, it appears that they experience both imagery and emotional reactions that are interrelated and can be reliably studied. Thus, readers' spontaneous imagery and emotional reactions are vital and viable areas that should be addressed in both theory and research. An account of the reading process that omits or denies these aspects of reader response would appear to be inadequate. We hope that the results of this study will serve as a challenge for theorists and researchers.

References

Anderson, R.C., Spiro, R.J., & Montague, W.E. (Eds.). (1977). Schooling and the acquisition of knowledge. Hillsdale, NJ: Lawrence Erlbaum.

Annixter, J., & Annixter, P. (1958). Buffalo chief. New York: Holiday House.

Barthes, R. (1976). The pleasure of the text. London: Cape.

Berger, E. (Ed.), (1958). The best short shorts. New York: Scholastic.

Carroll, J.B. (1964). Language and thought. Englewood Cliffs, NJ: Prentice-Hal

Culler, J. (1975). Structuralist poetics. London: Routledge & Keagan Paul.

Fish, S. (1980). Is there a text in this class? The authority of interpretive commmunities. Cambridge, MA: Harvard University Press.

Goodman, K. S. (1984). Unity in reading. In Purves, A.C. & Niles, O. (Eds.), Becoming readers in a complex society. 83rd Yearbook of the National Society for the Study of Education, Part I (pp. 79-114). Chicago: University of Chicago Press.

Goodman, Y. M., & Burke, C. L. (1972). Reading miscue inventory: Readings for taping (pp. 50-58). New York: Macmillan.

Gough, P.B. (1972) One second of reading. In J.F. Kavanagh & I.G. Mattingly (Eds.), Language by ear and by eye. (pp. 331-358). Cambridge, MA: MIT Press.

Holland, N. (1975). 5 readers reading. New Haven, CT: Yale University Press.

Iser, W. (1978). The act of reading: A theory of aesthetic response. Baltimore, MD: Johns Hopkins University Press.

LaBerge, D., & Samuels, S.J. (1974). Toward a theory of automatic information processing in reading. Cognitive Psychology, 6, 293-323.

Sadoski, M., & Goetz, E.T. (1985). Relationships between affect, imagery, and importance ratings of segments of a story. In J.A. Niles & R. Lalik (Eds.), Issues in literacy: A research perspective (pp. 180-185). Thirty-fourth Yearbook of the National Reading Conference. Washington D.C.: National Reading Conference.

Sadoski, M., Kangiser, S., & Goetz, E. T. (1986, December). Relationship between imagery and affect, and structural salience in stories. Paper presented at the meeting of the National Reading Conference, Austin, TX.

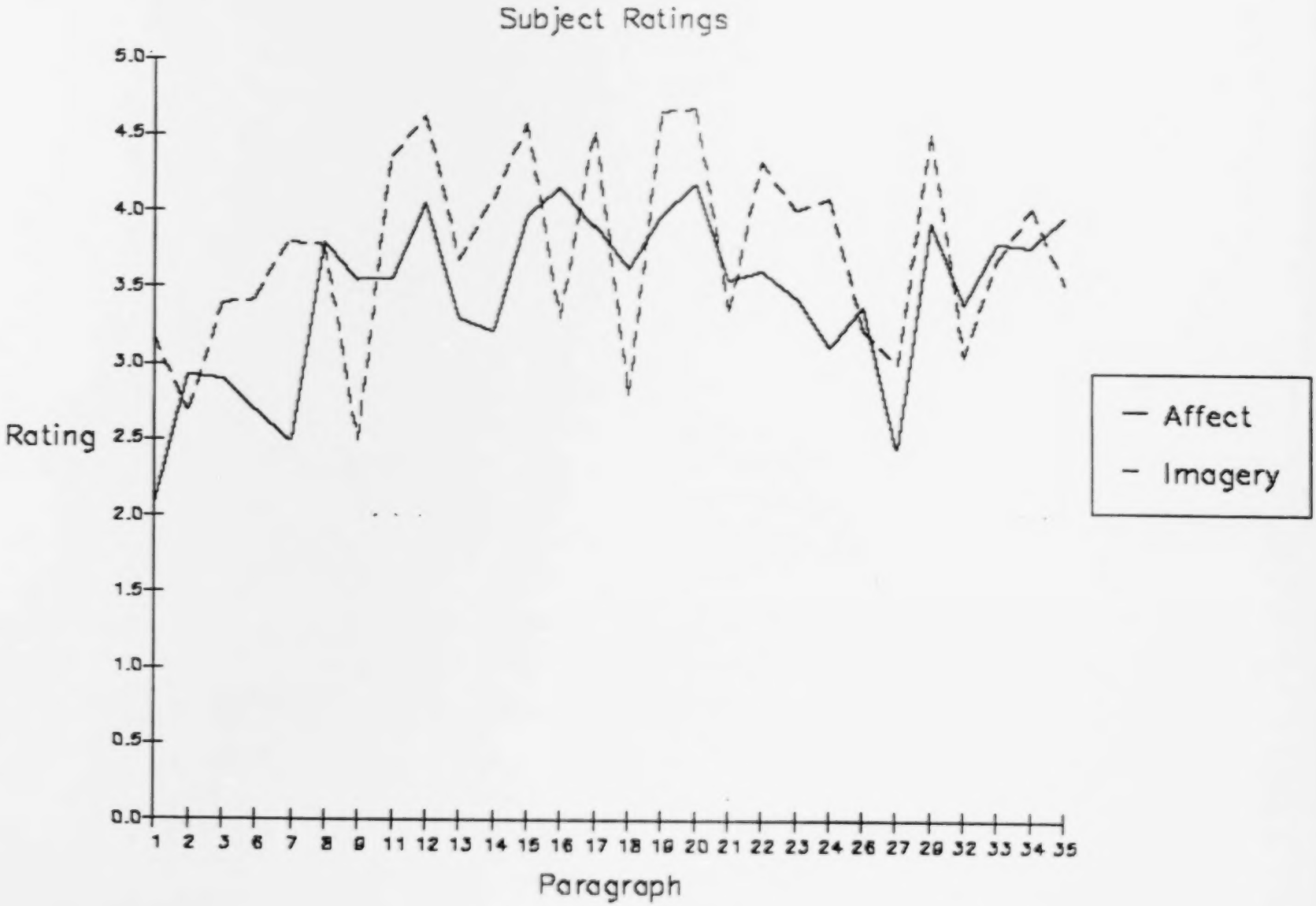
Smith, F. (1982). Understanding reading (3rd ed.). New York: Holt, Rinehart & Winston.

Spiro, R.J., Bruce, B.C., & Brewer, W.F. (Eds.) (1980). Theoretical issues in reading comprehension. Hillsdale, NJ: Lawrence Erlbaum.

Zholkovsky, A. (1984). Themes and texts. Ithaca, NY: Cornell University Press.

Figure Caption

Figure 1. Mean paragraph ratings of imagery and emotional response.


Subject Ratings
Rating
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1 2 3 6 7 8 9 11 12 13 14 15 16 17 18 19 20 21 22 23 24 26 27 29 32 33 34 35
Paragraph
Affect
Imagery